Guardians of The Gold

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A *gold pectoral from a late fourth-century B.C. Scythian burial depicts three pairs of griffins attacking horses. Gold scabbard from a Scythian tomb shows a lion and griffin mauling a stag.*

Facing page: *griffin image on early sixth-century B.C. Scythian gold plaque.*

Guardians of The Gold

A twentieth-century scholar tracks the origin of the legendary griffin—from seventh-century Greece back to the Age of the Dinosaurs.

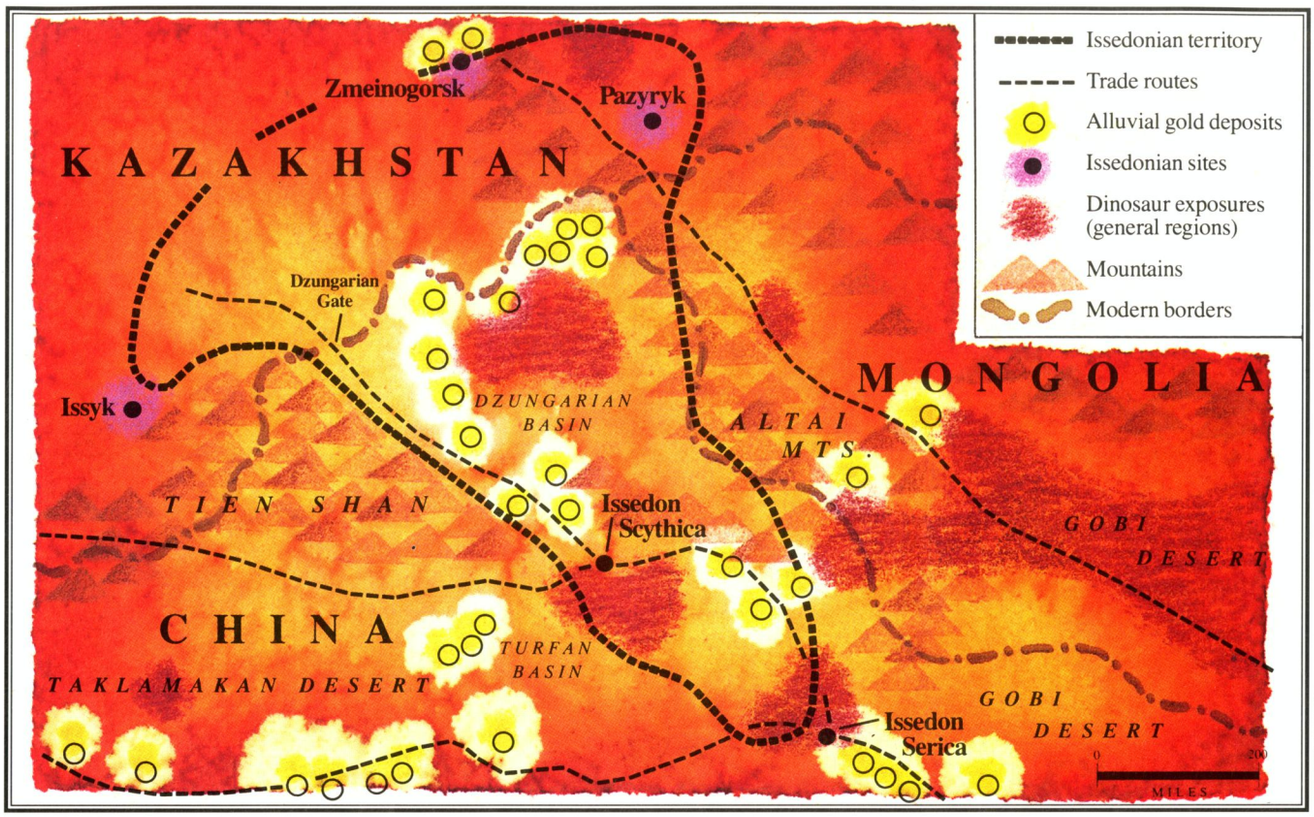
In the seventh century B.C. the Greeks made contact with the nomadic peoples of Central Asia. Along with gold and exotic goods, the caravan routes from the east brought back folklore about remote lands. One tale, about gold-guarding griffins, appeared in an epic poem by a Greek named Aristeas (the poem is now lost, though fragments are preserved in the writings of other ancient authors). Aristeas visited a tribe of Saka nomads he called the Issedonians at the base of the Altai ("gold") Mountains in about 675 B.C. They told him about a remote wilderness, where one-eyed horsemen called Arimaspeans stole gold from griffins (from the Greek word *gryps* for "hooked," as in beak, and related to the Persian verb *giriften*, "to grip or seize").

On my first visit to Greece in 1978, I spent hours gazing at the Archaic bronze griffins from the time of Aristeas displayed in the Samos Archaeological Museum. At Olympia I studied the famous bronze relief of a mother griffin protecting her young. Scenes of nomads battling griffins for gold nuggets in desert landscapes on red-figure vases and other artifacts intrigued me. In the 1940s, the Soviet archaeologist Sergei Rudenko excavated fifth-century B.C. tombs in the permafrost at Pazyryk, in the old Issedonian territory visited by Aristeas. Along with gold artifacts featuring griffins, Rudenko unearthed mummified bodies of people whose culture was similar to that of the Saka and Sarmatian nomads. The well-preserved skin of one of the men bore tattoos of real and unknown animals, including griffins. Rudenko's discoveries convinced me to pursue the legendary griffins in earnest.

Creatures combining the features of birds and mammals appeared in Near Eastern art as early as 3000 B.C., and in Mycenaean art of the Bronze Age, but there is no way of knowing what kind of folklore, if any, had been attached to them. From Aristeas and the Greek and Roman writers who followed him, we have at least snippets of oral tales about the griffins of Scythia, describing them as formidable predators the size of wolves, with strong beaks like those of eagles. In the seventh century B.C., the griffins of Scytho-Saka-Siberian art became popular motifs in Greek vase painting and sculpture. A Greco-Roman artistic and literary tradition about griffins thrived until about the third century A.D. The natural historian Aelian, writing in about A.D. 200, was the last author to record new information about gold-guarding griffins. About a century later, as the Roman Empire's lines to Asia were fraying, the owner of a villa in Sicily commissioned a mosaic showing the methods of capturing exotic beasts from the far reaches of the empire. In the last panel of the 70-yard-long "Great Hunt" mosaic is a griffin being lured into a trap baited with a nervous-looking man.

MJEDA/ART RESOURCE

BY ADRIENNE MAYOR



MAP BY BETTE DUKE

This griffin vignette may well signal the end of a thousand-year tradition of naturalistic written testimonies and related art. By medieval times, the griffin had become a creature defined by its allegorical attributes.

According to classical scholars, Aristeas had traveled to the western slopes of the Altai Mountains, where he heard Issedonian folklore about gold, griffins, and one-eyed Arimaspeans. Issedonian territory formed a wedge, bounded by the Tien Shan and the Altai ranges, in an area that straddles present-day northwestern Mongolia, northern China, southern Siberia, and southeastern Kazakhstan. The second-century A.D. geographer Ptolemy and ancient Chinese sources locate Issedonians along the old trade routes from China to the West, from the western edge of the Gobi Desert to the Dzungarian Gate, the pass between modern Kazakhstan and northwestern China. Recent linguistic studies by Michael Heaney of Oxford and archaeological discoveries by Jeannine Davis-Kimball of the Kazakh/American Research Project and others suggest that trade with Saka nomads flourished in this region from Aristeas' day to about A.D. 300.

The Athenian playwright Aeschylus was the earliest writer to use information gathered by Aristeas. In his tragedy *Prometheus Bound* (460 B.C.), Hermes, the messenger of the gods, predicts that landslides and torrential rains will bury Prometheus at the bottom of a ravine in a remote, dangerous land far beyond the Caucasus. Reached by caravan routes, this land is inhabited by nomads who prospect for gold in streams, by gorgons who turn living things to stone, and by griffins, fearsome creatures likened to "silent hounds with sharp beaks." The historian Herodotus visited the Scythians just beyond the Black Sea and listened to their tales of gold-guarding griffins farther east. "I cannot say for sure how the gold is obtained," he writes, but "some say that one-eyed men steal it from griffins." He scoffed at the notion of monocular humans but expressed no doubts about the *gryps*. In another passage about gold mining in the vast dunes of the Taklamakan Desert, south of the Tien Shan, Herodotus reports that prospectors made long expeditions in extreme heat and cold to gather gold nuggets thrown up by giant ants digging tunnels in the sand. Ctesias, a Greek physician living in the Persian capital of Persepolis in about 400 B.C., wrote that Asian gold was notoriously hard to obtain because it came from "high mountains in an area inhabited by griffins, a race of four-footed birds, almost as large as wolves and with legs and claws like lions."

By the time Pliny the Elder compiled his *Natural History* in A.D. 77, Romans were trading extensively over the silk routes to Asia. Griffinology kept pace. Summarizing the work of Aristeas, Herodotus, and others, Pliny stressed the "terrible hooked beak." He was the first to allude to the "ears" and "wings" of griffins, but he rejected the idea that the gryps was a real bird. Pliny adds an intriguing detail: "The griffins toss up gold when they make their burrows." At about the time of Pliny, the sage Apollonius of Tyana, who was said to have traveled extensively in Asia, supplied more data. He reported that rocks in the region of the griffins were "flecked with drops of gold like sparks,"

which griffins were able to quarry because of their strong beaks. He estimated their size and strength as equal to that of lions. Like Pliny, he denied that griffins—despite their beaks—were anything like real birds. They do not have true bird-wings, Apollonius said, only webbed membranes that helped them hop around during combat.

Claims that griffins were spotted like leopards led Pausanias, a knowledgeable Roman who traveled widely in ca. A.D. 170, to remark: "Those who love to hear marvelous stories cannot resist adding details, thus ruining the truth by mixing in lies." He briefly quotes Aristeas about Arimaspeans fighting for gold with griffins, which in artworks resemble "lions but with the beak and wings of an eagle." In the land of the griffins, Pausanias assures us, gold "emerges near or on the surface of the earth."

Within a generation of Pausanias the bare bones of these terse reports were fleshed out with vivid, naturalistic details. Here is Aelian's account:

I hear that the griffin has four legs like a lion, with talons as strong as can be. The claws are very like a lion's.... Its eyes are fiery. It makes its nest near mountains, and although it is impossible to take a full-grown griffin, people sometimes capture the chicks. The Bactrians say that griffins guard the gold of those parts, which they dig up and weave into their nests.... However, Indians sensibly deny that the creatures intentionally guard the gold. The truth is that when the prospectors approach, the griffins take fright for their young, and so give battle to the intruders.

Aelian tells how miners journey, in "armed groups of one or two thousand," to the wilderness of the gold deposits. "Out of respect for the bravery of these animals, they avoid hunting for gold in the day. They approach at night when they have the most chance of avoiding discovery." Aelian continues, describing the miners' tactics:

Now, the place where the griffins live and the gold is found is a howling desert. The treasure-seekers, waiting for some moonless night, come with shovels and sacks and dig. If the griffins do not notice them, the men reap a double reward, for their lives are preserved and they bring home their cargo of gold...rich profit for the dangers they face.... I am informed that the miners return home after two or three years.

Even though no one ever saw a live gryps, the salient details remained the same over a millennium of travel in griffin country. Somehow, it seemed, observable phenomena kept confirming the most remarkable things about them: they had four legs and a beak, and gold could be snatched up from their nests in the deserts of Central Asia. The gold mining led me to think about geology, and geology led to paleontology.

Legends of giants and monsters are often associated with fossil-rich areas. Since 1914, folklorists and paleontologists have assumed that the Homeric Cyclops

Those Wild and Hairy Arimaspeans!

Aeschylus, drawing from descriptions of the Greek poet Aristeas, characterized Arimaspeans as one-eyed nomads on horseback who got gold from streams in a land populated by griffins. Herodotus added that they battled griffins for gold and had driven the Issedonians west. He gave an etymology for the root *arimasp-*, stating that *arima* meant "one" and *spu* meant "eye" in Scythian, although he disbelieved that Arimaspeans were cyclopean. Later writers, with access to early Greek sources now lost, described Arimaspeans as strong, shaggy, tough warrior-horsemen rich in flocks and gold, with no mention of monocularism. A Scythian mirror found at Kelermes in the Caucasus shows two hirsute, but apparently binocular men fighting a griffin. Michael Heaney of the Bodleian Library, Oxford, recently published a linguistic analysis based on the historical development and phonology of several language groups of the Central Asian steppes and deserts. He concludes that *arimaspu* probably was a genuine "Scythian" word, but that Herodotus misunderstood the semantics. The name probably connoted something like "solitary desert horse owners." Heaney found that derivations of *arimasp*, the word recorded in the fifth century B.C. by Herodotus, are still current in remote areas of Mongolia and other regions ringing the Gobi, Dzungarian, and Taklamakan deserts. Delving deeper, he discovered that the modern term *alimasp* or *almas* (r has evolved to l in these languages, and the p disappears) refers to a legendary group of elusive, hairy, wild creatures. Some natives say that the almases live primitively in the mountains, while others claim they are wealthy herders dwelling in secret oases hidden in the most inaccessible expanses of the desert.—A.M.

legend, for example, arose from discoveries of prehistoric elephant skulls commonly found in Mediterranean caves: the large nasal cavity would have led someone unfamiliar with elephant osteology to visualize the skull of a one-eyed ogre. But before I asked what kind of prehistoric remains might have inspired the image of the griffin, I needed to locate those rich gold deposits exploited by the nomads of Central Asia, and then determine whether any fossil-bearing rock existed in the landscape where they sought gold.

Spectacular amounts of gold jewelry and other artifacts with griffins as a recurrent motif have come from tombs excavated along the slopes of the Altai and Tien Shan. These mountains were the traditional source of Scythian gold, but many of the ancient writers also described prospecting expeditions in the deserts between these mountains. The locations and size of Russian and Chinese gold deposits have long been closely guarded secrets. Yet, by consulting the writings of nineteenth- and early twentieth-century travelers, archaeologists' notes, and even declassified Western intelligence documents, I was able to determine that placer gold is extremely plentiful and had been mined since antiquity in the gullies skirting the old caravan routes. Like Russian gold-seekers of the 1800s and early 1900s, who were guided by old place-names to exploit the detritus of ancient Scythian mines, I pored over old maps and journals to locate places along the caravan routes from the Gobi to Lop Nur and the Dzungarian Gate whose names mean "gold" in Chinese and local dialects. Between 1860 and 1950, the same technique had allowed Russian archaeologists to rediscover more than 100 Altai gold mines worked since about 1500 B.C. Their most fascinating find was the skeleton of a Bronze Age miner whose leather bag still held golden nuggets.

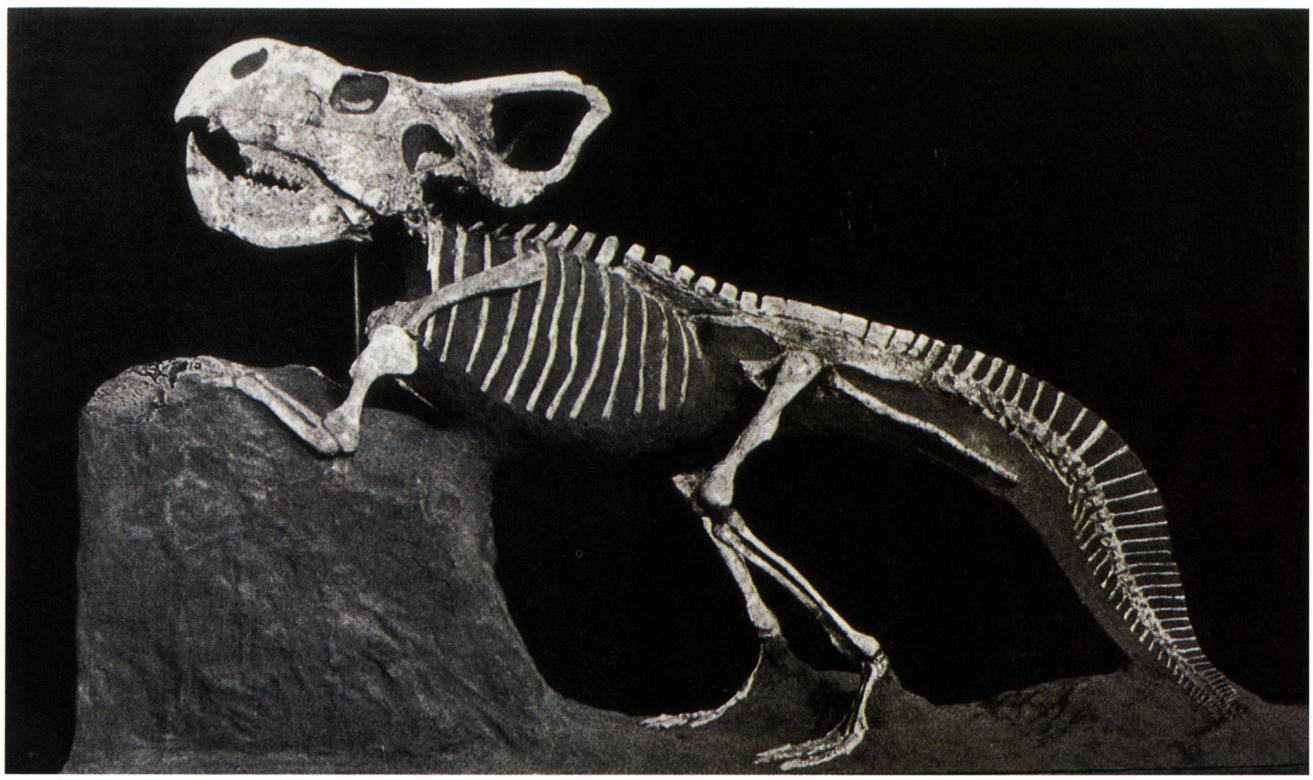
I asked geomorphologist Sheldon Judson (emeritus professor, Princeton University) about the gold deposits. He told me how gold within Altai and Tien Shan granite continually erodes down from the massifs into foothills and basins. A casual comment by Judson suggested that Herodotus' "gold-mining ants" tale held a kernel of truth: it is common knowledge among geologists that precious minerals are in fact carried to the surface by ants as they tunnel in the sand. Anthills are eagerly examined by paleontologists, too, because ants also bring small fossils to the surface. When I learned that some of the world's richest fossil beds are located in the badlands and sedimentary red cliffs along the old trade routes across the Gobi, Turfan, and Dzungarian deserts below the peaks of the Altai and Tien Shan, I realized that ancient gold-seekers might well have encountered impressive prehistoric remains there.

Supernatural creatures, "fields of white bones," and "heaps of hard, bright white stones like bones" had been mentioned by thirteenth-century Chinese travelers near Turfan and Lop Nur. In the 1920s, Roy Chapman Andrews, piqued by Chinese folklore about dragons'

A *young griffin crouches beneath its mother's wing in this redrawing of a bronze relief from Olympia, ca. 630 B.C.*

METROPOLITAN MUSEUM OF ART, BAKER GIFT 1972.118.54

Griffins with threatening beaks, long ears, and forehead horns were favorite subjects for cast-bronze decorations in ancient Greece. This late seventh-century piece is from Olympia.



COURTESY ADRIENNE MAYOR

***S**keletons of beaked dinosaurs, like this* Protoceratops, *are common in deserts where ancient Issedonian nomads searched for gold.*

teeth, led the American Museum of Natural History's Central Asia Expedition to investigate the fossil exposures of the Gobi Desert. Following ancient caravan routes through a desolate landscape, his team discovered—on the surface or partially embedded—troves of bones of Late Cretaceous (ca. 60 million years ago) dinosaurs. The skeletons ranged from newly hatched babies to adults. Andrews's photographs, first published in 1926, show that some of the skulls had knobs, bony frills, and powerful beaks—and many were found still attached to their four-limbed skeletons. The windswept Gobi had been a vast nesting ground for *Protoceratops*, a six- or seven-foot-long dinosaur with four legs, claws, and a wicked-looking beak. Shallow depressions still contained clutches of their fossilized eggs and nestlings. Andrews wrote that fossils "strewn over the surface almost as thickly as stones" made the desert seem "paved with bones." In one afternoon, each team member found a dinosaur skull; in two weeks they gathered more than a ton of fossils; in two summers they excavated more than 100 *Protoceratops*.

If similar remains existed in Issedonian gold-mining areas west of the Gobi, on the other side of the 15,000-foot-high Altai Mountains, they might have been viewed long ago as terrifying griffins. I needed to talk with paleontologists who had worked in the region where Issedonians had once dared to search for gold. Dale Russell of the Canadian Museum of Nature and Philip Currie of the Tyrrell Museum of Paleontology, co-leaders of the Canadian-Chinese Dinosaur Project

AMERICAN MUSEUM OF NATURAL HISTORY

***F**ossilized dinosaur eggs can still be found at nesting grounds near gold deposits in the windswept deserts of Central Asia.*

with Chinese paleontologist Dong Zhiming, had begun to explore the Xinjiang province in remote northwest China in 1987. As in the Gobi, remains of primitive horned dinosaurs with parrot beaks (psittacosaurs) were abundant, and complete skeletons were not unusual.

In the wind-scoured dunes, alluvial depressions, and red sandstone cliffs of the Dzungar (or Junggar) and Turfan badlands, prehistoric remains are revealed by the same forces of erosion that bring the gold down from the mountains. The fossiliferous sandstone formations are prominent landmarks along the old caravan routes, and still provide shelter and game for travelers. The region is extremely arid and there is little vegetation, making it possible to spot fossils on the surface.

Russell says that the shapes of the skulls and skeletons are quite obvious and the rock is soft, making it easy to uncover partially embedded bones. The fossils also stand out, adds Currie, because their white color contrasts with the red sandstone. I remembered reading about American tourists in the Gobi who came across a *Protoceratops* skull in 1992. Only the beak was protruding, but they uncovered enough of the body to see that an entire animal was there in a standing position. Russell and Currie confirm that ancient nomads could have observed fully articulated remains of dinosaurs about the size of wolves and resembling large flightless four-legged raptors, "guarding" the approaches to Issedonian gold deposits.

To ancient observers, such finds plus knowledge of animal behavior may have suggested scenes of fierce animals defending territory and young, as in the Olympia relief and Aelian's narrative. *Protoceratops* and other beaked quadrupeds are the most common remains in these deserts, and they share many characteristics with the image of the ancient gryps, although remains of other dinosaurs—the large isolated claws collected by the Canadian-Chinese team, the sharp-beaked and crested Dzungarian pterosaur with a ten-foot wingspan, and various other bony, ridged, frilled, knobbed, and spiked skulls and spines found there—may also have contributed to the legend. The stiffly stylized wings and head knobs on griffins in ancient art may have been an attempt to account for odd features of some fossils. Perhaps wings were added by artists to complement the strange creature's avian characteristics—the beak, nest building, egg laying, and even the collection of shiny objects (an activity well known to ancient birdwatchers such as Pliny).

That last point nagged at me. Gold's igneous origin meant that it could only come from rocks much older than the Cretaceous sediments that held *Protoceratops* and psittacosaur bones. How could gold nuggets turn up in griffin nests? Judson explains that gold-bearing quartz is continually rainwashed from the mountains to the alluvial basins below. There, wind and gravity distribute sand containing gold dust, flakes, even nuggets over the geologically younger sediments. Travelers report that in these deserts sandstorms can transport pebbles the size of silver dollars. Mildred Cable, who spent 15 years exploring the Gobi-Turfan-Dzungarian deserts in the early 1900s, described the collection of precious stones exposed in the dunes after violent windstorms. In the first century A.D., Pliny the Elder reported that natives gathered precious metals glittering in the sand after whirlwinds in those same deserts. Chance finds of gold particles near or lodged in "griffin nests" could have inspired stories that the gryps guarded or gathered the gold.

Was the Issedonian oral lore about griffins a garbled but accurate account of the bones of strange creatures scattered in the desert? Was it a tale concocted to scare away rival gold-diggers? We only know that the tales

ERICH LESSING/ART RESOURCE

By *the seventh century B.C., griffins had become popular motifs in Greek art. This gold ornament was found at Delphi.*

ERICH LESSING/ART RESOURCE

A *horseman pursues a griffin in this late sixth-century B.C. painted terra-cotta artwork from Asia Minor.*

inspired Aristeas to write an epic poem admired and quoted by later writers. Aeschylus' evocation of Prometheus' fate in "Far Scythia" is especially haunting. Far beyond the Caucasus, he writes, cosmic thunder, lightning, and torrential rains pound the mountain cliff where Prometheus is chained. An avalanche buries him at the bottom of a ravine, trapping him in stone for eons, in a land remarkable for its once-living creatures petrified by magic—silent sharp-beaked predators—and gold-mining nomads. He must travel through vast tracks of time, before at last coming back into the sunlight, a carcass for eagles to ravage. Relying on Aristeas's descriptions, the fifth-century B.C. playwright had come up with a remarkable metaphor for the geological events that created, hid, and then revealed our griffinosaur. ■

ADRIENNE MAYOR, *a classical folklorist, has published articles about legends involving Amazons, mirages, phantom ships, and poison cloaks.*

Flights of Imagination

In 1646, Sir Thomas Browne's treatise Vulgar Errors declared that the ancient griffin was merely a symbol, an imaginary composite of the noble attributes of the eagle and the lion. In 1652, fellow scientist Andrew Ross disagreed, arguing that the griffin was an ancient attempt to describe an unusual animal of "Scythia or Cathay." Ross challenged Browne's interpretation of the ancient writers, who, he noted, did not portray the griffin as a hybrid like the Centaur, Sphinx, or Minotaur, and never claimed that it was a crude conjunction of two animals, "a lion behind and Eagle in the forepart." Instead, they merely said that the four-legged creature had a beak. Ross pointed out that bats, flying fish, giraffes, and marsupials had once sounded like "mixt and dubious" fantasies, yet later turned out to be real animals. Most scholars, however, accepted Browne's declaration that the classical griffin was purely imaginary, a symbol of vigilance, swiftness, the sun, the sky, generosity, greed, royalty, loyalty, death, duality, or simply the difficulties of mining.

SCALA/ART RESOURCE

The griffin becomes a creature of allegory, flanked by Justice and Mercy, on this 1599 Italian manuscript page.

In 1827, before gaining fame as an Egyptologist, Adolph Erman traveled across Siberia. Natives told him that bones of Ice Age woolly mammoths, found along polar river banks, were the remains of colossal bird-monsters killed by their ancestors. Gold-bearing sand lay just under the peat that contained the mammoth remains. In his memoirs, Erman suggested that similar discoveries in antiquity might have been "the prototype of the Greek story of the Grifons." In a 1962 book about Aristeas, British classicist J.D.P. Bolton rejected Erman's theory, noting that the griffin tale had originated near the Altai Mountains, far away from Erman's mammoth remains north of the Urals.

Even stranger identifications of the griffin have been offered by other scholars. In 1884, Valentine Ball proposed that the ancient griffin was an exaggerated representation of the ferocious Tibetan mastiff. The great Scythian scholar E.H. Minns saw the legend as a garbled description of the vigilant little rodents *baibak* (steppe jerboa) and *suslik* (steppe squirrel), both of which burrow in gold-bearing sand. Others suggested that collective memories of prehistoric reptiles were responsible for the griffin legend, while some cryptozoologists (scholars who attempt to identify unknown animals based on physical evidence and testimonies) argue that it must have been based on a large predatory raptor such as the lammergeier, eagle, or vulture, discounting the ancient authors who specifically distinguish the griffin from a real bird. In 1979, Georges Charrière, an expert on Scythian art, suggested that griffins were simply bizarre hallucinations induced by hashish.—A.M.